

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-3, 5-10, and 12-14 are pending in this application, Claims 1, 3, 5, 6, 8, and 12 having been currently amended; and Claims 13 and 14 having been added. Support for amended Claims 1, 3, 5, 6, 8, and 12, and new Claims 13 and 14 can be found, for example, in the original claims, drawings, and the specification as originally filed. No new matter has been added.

In the outstanding Office Action, Claims 1, 8, and 12 were rejected under 35 U.S.C. § 101; Claims 1-3, 5-10, and 12 were rejected under 35 U.S.C. § 112, second paragraph; Claims 1-3, 5-7, and 12 were rejected under 35 U.S.C. § 102(b) as anticipated by Rodgers et al. (U.S. Patent Publication No. 2002/0026478; hereinafter “Rodgers”); and Claims 1-3, 5-10, and 12 were rejected under 35 U.S.C. § 103(a) as unpatentable over Nakano et al. (U.S. Patent Publication No. 2003/0152222; hereinafter “Nakano”) in view of Danneels et al. (U.S. Patent No. 6,272,472; hereinafter “Danneels”), Nakano et al. (U.S. Patent Publication No. 2004/0243814; hereinafter “Nakano II”); and Matsuyama et al. (U.S. Patent Publication No. 2002/0026581; hereinafter “Matsuyama”).

Applicants acknowledge with appreciation the courtesy of Examiner Su in granting an interview in this case with Applicants’ representative on August 18, 2010, during which time the issues in the outstanding Office Action were discussed as substantially summarized hereinafter and also on the Interview Summary Sheet. No agreement was reached during the interview pending a formal response to the outstanding Office Action.

Initially, Applicants note that the Office Action Summary page indicates that only some of the certified copies of the priority documents have been received, while the Office Action of April 20, 2009 indicated that **all** of the certified copies of the priority documents

have been received. After checking PAIR, a certified copy of JP 2003-150906 was received on September 16, 2005, and thus Applicants request that the next Office Action properly indicate that all certified copies of the priority documents have been received.

In response to the rejection of Claims 1, 8, and 12 under 35 U.S.C. § 101, Applicants respectfully traverse the rejections as discussed next.

In regard to Claims 1 and 12, page 4 of the outstanding Office Action asserts that these claims are directed to data structures, and are thus software per se. Applicants note that MPEPE 2106.01 I specifically states that “***a claimed computer-readable medium encoded with a data structure*** defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and ***is thus statutory***.”

The Office Action also asserts that the “claims are lacking the execution of a computer program and an interrelationship between the computer program and a device for performing a function.” Applicants respectfully disagree. Claims 1 and 12 recite computer executable instructions which are executed by an information processing apparatus, and thus there is a relationship between the executable instructions stored on the computer-readable storage medium and the information processing apparatus executing the instructions.

Lastly, even if the subject invention were implemented 100% in software, that would not be an adequate basis in law for a 101 rejection, in consideration of the CCPA decision, in *In re Bernhart*, 163 USPQ 611 (C.C.P.A. 1969) stated the following:

To this question we say that if a machine is programmed in a certain new and unobvious way, it is physically different from the machine without that program; its memory elements are differently arranged. The fact that these physical changes are invisible to the eye should not tempt us to conclude that the machine has not been changed. If a new machine has not been invented, certainly a “new and useful improvement” of the unprogrammed machine has been, and

Congress has said in 35 U.S.C. §101 that such improvements are statutory subject matter for a patent. It may well be that the vast majority of newly programmed machines are obvious to those skill in the art and hence unpatentable under 35 U.S.C. §103. We are concluding here that such machines are statutory under 35 U.S.C. §101....^{1[2]}

The Federal Circuit in *In re Alappat*, 31 USPQ2d 1545 (Fed. Cir. 1994), at page 1157 reiterated the essence of the *Bernhart* decision, stating:

"The reconsideration Board majority also erred in its reasoning that claim 15 is unpatentable merely because it "reads on a general purpose digital computer 'means' to perform the various steps under program control." ... The Board majority stated that it would "not presume that a stored program digital computer is not within the Section 112 Para. 6 range of equivalents of the structure disclosed in the specification."²⁶ ... *Alappat* admits that claim 15 would read on a general purpose computer programmed to carry out the claimed invention, but argues that this alone also does not justify holding claim 15 unpatentable as directed to nonstatutory subject matter. We agree. **We have held that such programming creates a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software.** In *re Freeman*, 573 F.2d 1237, 1247 n.11, 197 USPQ 464, 472 n.11 (CCPA 1978); In *re Noll*, 545 F.2d 141, 148, 191 USPQ 721, 726 (CCPA 1976); In *re Prater*, 415 F.2d at 1403 n.29, 162 USPQ at 549-50 n.29.

²⁶ The disclosed ALU, ROM and shift registers are all common elements of stored program digital computers. **Under the Board majority's reasoning, a programmed general purpose computer could never be viewed as patentable subject matter under Section 101. This reasoning is without basis in the law. The Supreme Court has never held that a programmed computer may never be entitled to patent protection. Indeed, the *Benson* court specifically stated that its decision therein did not preclude "a patent for any program servicing a computer." *Benson*, 409 U.S. at 71. Consequently, a computer operating pursuant to software may represent patentable subject matter, provided, of course, that the claimed subject matter meets all of the other requirements of Title 35. "** (Emphasis added, some citations and footnotes omitted)

Thus, contrary to what appears to be a significant aspect of the outstanding grounds for rejection under 35 U.S.C. §112, 2nd para., and 35 U.S.C. §101, software claims are not per se unpatentable. The cited case law directed to software cases is believed to vigorously

refute any such contention. Furthermore, there is nothing in the MPEP, 37 C.F.R., 35 U.S.C. or the case law which supports the position that software claims are per se non-statutory.

Indeed, MPEP 2106.01, which the Examining Corps is required to follow, states:

... USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. **Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material *per se* and hence nonstatutory.** (emphasis added)

Accordingly, a rejection under 35 U.S.C. §101 on the basis that software is per se non-statutory is itself an improper refutation of this statement of the MPEP.

Thus, Applicants respectfully request that the rejection of Claims 1 and 12 under 35 U.S.C. § 101 be withdrawn.

In regard to Claim 8, page 5 of the outstanding Office Action asserts that “a tie can not be made directed to mere extra-solution activity. In this case, the tie is directed to authenticating and decryption steps which are representative of extra-solution activity. Therefore, the method steps of ‘reproducing the decrypted content...using unique key information to encrypt...transmitting said encrypted content’ are still not tied to another statutory class.” Applicants respectfully disagree and respectfully submit that the method recited in amended Claim 8 is sufficiently tied to a particular machine or apparatus, as Claim 8 recites that the information processing method is implemented by an information processing apparatus, and recites that a processor in the information processing apparatus performs an authentication process with the first execution file. Thus, the method recited in Claim 8 is tied to a particular apparatus as the claim positively recites the machine that performs the method steps. Further, the steps of “transmitting” and “reproducing” do not need to be tied to another statutory class as asserted in the Office Action, § 101 only requires

that the method be tied to a particular apparatus, and the Applicants' method is tied to the information processing *apparatus*. Lastly, Claim 8 does not describe extra solution activity, but rather the execution steps are the solution activity.

Also, Applicants respectfully submit that Claim 8 describes the transformation of underlying subject matter to a different state or thing, as this claim describes the transformation of data. For example, encrypted content is decrypted and a content key is generated by the second execution file.

Lastly, the recent *In re Bilski* Supreme Court case held that the machine or transformation test is not the sole test for determining whether a method claim is statutory, and indicated that this test only provides a clue when determining statutory subject matter. The Court also stated that abstract ideas are not patentable under § 101. Applicants' Claim 8 is clearly not directed towards an abstract idea (e.g. pure mental steps) as explained above.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 8, and 12 under 35 U.S.C. § 101 be withdrawn.

In response to the rejection of Claims 1-3, 5-10, and 12 under 35 U.S.C. § 112, second paragraph, page 6 of the outstanding Office Action asserts that a claim that "purports to be both a product or machine and a process is ambiguous and is rejected for failing to particularly point out and distinctly claim the invention." Applicants respectfully submit that Claims 1 and 12 do not purport to be directed to both a product and a process, but rather just a product (a computer-readable storage medium). Claims 1 and 12 merely describe that the computer-readable storage medium is executed by an information processing apparatus. It is not improper to recite two different statutory categories in a claim, as is clear in *In re Bilski*, the Supreme Court held that one way a method claim can be statutory is if the method is tied to a particular machine or apparatus. Thus, the Supreme Court made it clear that two statutory classes can be recited in a claim.

In regard to Claim 5, this claim is believed to be proper for similar reasons as above, as this claim is clearly directed towards an apparatus, but also recites an article of manufacture in the claim.

Page 7 of the outstanding Office Action asserts that in Claims 1 and 5, the language “digital signature information that has previously been attached” is unclear if this language describes the signature or an actual step to be performed. Applicants respectfully submit that this language does not recite an actual step to be performed but is merely a description of a characteristic of the digital signature information.

Page 7 of the outstanding Office Action asserts that in Claim 8, the language “reproducing the decrypted content with the processor in the information processing apparatus” is unclear as to whether the reproducing is done by the apparatus or some other entity. Applicants respectfully submit that this feature clearly states that the reproducing is performed “*with the processor in the information processing apparatus.*” Thus, this claim couldn’t be any clearer for indicating that it is the information processing apparatus performing the reproducing.

Lastly, in regard to the rejection of Claim 12 at page 7 of the outstanding Office Action, Applicants have amended this claim to address the Office Action’s concerns by amending the claim to recite “verify digital authentication information attached to a content that is downloaded via a network by using the unique key information, decrypt the content, and reproduce the decrypted content.”

Accordingly, Applicants respectfully request that the rejection of Claims 1-3, 5-10, and 12 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In response to the rejection of Claims 1-3, 5-7, and 12 under 35 U.S.C. § 102(b) as anticipated by Rodgers, Applicants respectfully submit that amended independent Claim 1 recites novel features clearly not taught or rendered obvious by the applied art reference.

Amended independent Claim 1 is directed to a computer-readable storage medium storing instructions executable by an information processing apparatus which includes a processor, the computer-readable storage medium including, *inter alia*:

... a first execution file recorded on said computer-readable storage medium using a copy protection mechanism, said first execution file including

instructions which cause the information processing apparatus to perform an authentication process with a second execution file that is not stored on said computer-readable medium,

instructions which cause the information processing apparatus to obtain unique key information unique to said first execution file, and

instructions which cause the information processing apparatus to transmit said unique key information to said second execution file,

wherein the instructions for performing, instructions for obtaining, and instructions for transmitting in said first execution file are executed by the information processing apparatus including the processor, when said computer-readable storage medium is inserted into said information processing apparatus, and said second execution file generates a content key from said transmitted unique key information, decrypts encrypted content that is recorded on said computer-readable storage medium using the content key, and reproduces the decrypted content, and

wherein said unique key information is configured to encrypt encryption key information which is used for encrypting digital signature information that has previously been attached to said encrypted content, and said instructions for transmitting cause said encrypted content to be transmitted to said second execution file based on said digital signature information.

Independent Claims 5 and 8 recite substantially similar features as independent Claim

1. Thus, the arguments presented below with respect to independent Claim 1 are also applicable to independent Claims 5 and 8.

Page 8 of the outstanding Office Action asserts that Rodgers discloses each and every feature of Applicants' independent Claims 1, 5, and 8, because paragraph [0170] of Rodgers describes a computer-readable medium comprising program code. Applicants respectfully disagree. Rodgers is directed to linked multi-user groups of shared software applications.² Paragraph [0170] of Rodgers states:

It should be appreciated that any single component or collection of multiple components of the computer system that perform the functions described above can be generically considered as one or more controllers that control the above-discussed functions. The one or more controllers can be implemented in numerous ways, such as with dedicated hardware, or using a processor that is programmed using microcode or software to perform the functions recited above. In this respect, it should be appreciated that one implementation of the present invention comprises at least one computer readable medium (e.g., a computer memory, a floppy disk, a compact disk, a tape, etc.) encoded with a program that, when executed on a processor, performs the above-discussed functions of the present invention. The computer readable medium can be transportable such that the program stored thereon can be loaded onto any computer system resource to implement the aspects of the present invention discussed above. In addition, it should be appreciated that the reference to a computer program that, when executed, performs the above-discussed functions is not limited to an application program running on application space on any computer. Rather, the term computer program is used here in a generic sense to reference any type of computer code (e.g., software or microcode) that can be employed to program a processor to implement the above-discussed aspects of the present invention.

Thus, Rodgers merely describes that one implementation of the invention comprises at least one computer readable medium encoded with a program that, when executed on a processor, performs the functions of the invention described in Rodgers. That is, Rodgers broadly describes a computer readable medium with program code, but Rodgers does not describe a computer-readable storage medium including a first execution file recorded on the computer-readable storage medium using a copy protection mechanism, the first execution

² See Rodgers at paragraph [0002].

file including: instructions which cause an information processing apparatus to perform an authentication process with a second execution file, instructions which cause the information processing apparatus to obtain unique key information unique to the first execution file, and instructions which cause the information processing apparatus to transmit the unique key information to the second execution file.

Thus, Rodgers fails to teach or suggest each and every feature recited in Applicants' independent Claims 1, 5, and 8. MPEP 2131 states that "A claim is anticipated ***only if each and every*** element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," (Citations omitted) (emphasis added). See also MPEP 2143.03: "***All words in a claim must be considered*** in judging the patentability of that claim against the prior art." The outstanding Office Action did not consider all of the words in Claims 1, 5, and 8 when determining patentability.

Accordingly, Applicants respectfully request that the rejection of Claims 1-3, 5-7, and 12 under 35 U.S.C. § 102(b) as anticipated by Rodgers be withdrawn.

In response to the rejection of Claims 1-3, 5-10, and 12 under 35 U.S.C. § 103(a) as unpatentable over Nakano in view of Danneels, Nakano II, and Matsuyama, Applicants respectfully request reconsideration of the rejection and traverse the rejection as discussed next.

Page 10 of the outstanding Office Action states:

Applicant is reminded that it has been held stored data is not functionally related to the memory in which it is stored and does not distinguish the claimed apparatus, method, and system from the prior art (*In re Gulack*, 217 USPQ 401 (Fed. Cir. 1983); *In re Ngai*, 70 USPQ2d (Fed. Cir. 2004); *In re Lowry*, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP 2106.01). The non-functional limitations "instructions for performing an authentication...instructions for obtaining...instructions for transmitting...to said second execution file" in Claim 1 are not given patentable weight.

First, Applicants note that the *In re Gulack*, *In re Ngai*, and *In re Lowry* cases are cited in MPEP 2106.01 as pertaining to **nonfunctional** descriptive material. MPEP 2106.01 describes that nonfunctional descriptive material includes but is not limited to music, literary works, and a compilation or mere arrangement of data. Applicants' Claim 1 is not directed to one of these categories of subject matter. MPEP 2106.01 describes that **functional** descriptive material consists of data structures and computer programs which impart functionality when employed as a computer component. Thus, Applicants' Claim 1 is not directed to a computer-readable storage medium which stores nonfunctional descriptive material, but rather stores **functional** material as described above in regard to the §101 rejection.

The outstanding Office Action also cites MPEP 2106.01 in support of its assertion that "stored data is not functionally related to the memory in which it is stored and does not distinguish the claimed apparatus, method, and system from the prior art." However, MPEP 2106.01 states that when "functional descriptive material **is recorded on some computer-readable medium**, it becomes structurally and functionally interrelated to the medium and **will be statutory** in most cases since use of technology permits the function of the descriptive material to be realized." Also, MPEP 2106.01 deals with determining whether or not subject matter is statutory, it does not give any guidance for determining whether or not certain features are given patentable weight.

Further, Applicants note that the *In re Gulack* decision does not hold that "stored data is not functionally related to the memory in which it is stored and does not distinguish the claimed apparatus, method, and system from the prior art" as asserted in the Office Action. In fact, the *In re Gulack* case does not involve stored data on a memory at all. As explained in Applicants' previous response, *In re Gulack* relates to descriptive material presented on a substrate, *In re Gulack* is wholly unrelated to the Applicants' claims as the invention in *In re*

Gulack has three elements: 1) a band, ring, or set of concentric rings, 2) a plurality of digits imprinted on the band or ring at regularly spaced intervals; and (3) an algorithm by which the appropriate digits are developed. The nonfunctional descriptive written material distinguished in *In re Gulack* is only deemed nonfunctional as it relates to the patentability of a substrate. Simply stated, this case makes it clear that what is **written** on a **substrate** will not distinguish the invention from the prior art in terms of patentability **of the substrate**. It is unclear why the Official Action cites this case as a first execution file including instructions for performing an authentication process with a second execution file **is not written material**. Applicants' claimed first execution file including instructions for performing an authentication process with a second execution file is in stark contrast to a mere font of typeface, as discussed in the cited case law. Accordingly, Applicants submit that this rejection is deficient, and should be withdrawn, at least, for this reason alone.

Turning now to the applied references, Applicants respectfully submit that the cited references fail to teach or suggest "said first execution file including instructions which cause the information processing apparatus to perform an authentication process with a second execution file that is not stored on said computer-readable medium, instructions which cause the information processing apparatus to obtain unique key information unique to said first execution file, and instructions which cause the information processing apparatus to transmit said unique key information to said second execution file," as recited in Claim 1.

Page 9 of the outstanding Office Action asserts that Nakano describes "obtaining unique key information unique to said first execution file" and that paragraph [0076] specifically describes "transmitting said unique key information to said second execution file." Applicants respectfully disagree.

Paragraph [0076] of Nakano states:

The reference license information computing unit 35 has a computational mechanism that performs the same computation as the license information computing unit 16, to compute reference license information. In detail, the reference license information computing unit 35 acquires the media number recorded in the media number area 21, the encrypted content key recorded in the encrypted content key area 23, and the master key stored in the master key storing unit 31. The reference license information computing unit 35 concatenates the media number, the master key, and the encrypted content key into one bit string. The order of concatenating these data is the same as the order used by the license information computing unit 16. The reference license information computing unit 35 takes this bit string as input, and performs a computation using a hash function such as, SHA-1. As a result, the reference license information computing unit 35 obtains a hash value of 160 bits in length, and sets the hash value as reference license information.

Thus, the above portion merely describes that the encrypted content key is recorded in the encrypted content key area 23. However, the above portion of Nakano does not describe that a first execution file recorded on a computer-readable medium includes instructions which cause an information processing apparatus to transmit unique key information, that is unique to the first execution file, to a second execution file, that is not stored on the computer-readable medium, which has been authenticated. Hence, paragraph [0076] of Nakano does not describe transmitting unique key information as asserted in the Office Action. In other words, Nakano does not describe a second execution file that is stored outside of the recording medium 20, and that an information processing apparatus transmits unique key information to the second execution file.

Applicants respectfully submit that Danneels, Nakano II, and Matsuyama fail to cure any of the above-noted deficiencies of Nakano.

Accordingly, Applicants respectfully request that the rejection of Claims 1-3 and 5-12 under 35 U.S.C. § 103(a) as unpatentable over Nakano in view of Danneels, Nakano II, and Matsuyama be withdrawn.


In regard to new Claims 13 and 14, Claims 13 and 14 recite that “said encrypted content is recorded in a different information processing apparatus than said information processing apparatus.” In contrast, paragraph [0043] of Nakano describes that the reproduction device 30 decrypts the encrypted content on a recording medium 20. Thus, in Nakano, the encrypted content is stored on the recording medium 20 and is not recorded on a different information processing apparatus than the information processing apparatus reads the computer-readable storage medium.

Thus, Applicants respectfully submit that Claims 13 and 14 are patentable.

Consequently, in view of the present amendment, and in light of the above discussion, the pending claims as presented herewith are believed to be in condition for formal allowance, and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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